

# Infant Feeding Assessments for PMTCT Program Design



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Prevention of mother-to-child transmission of HIV (PMTCT) plays an important role in the global fight against AIDS. Transmission can occur in the womb, during delivery, or through breastfeeding. In developing countries, breastfeeding for up to 2 years may be responsible for one-third to one-half of HIV infections in infants and young children.<sup>1</sup> In many of these same countries, however, the health risks of replacement feeding, especially in the first 6 months, outweigh the risks of HIV transmission.

For this reason, HIV-positive mothers and their health care providers need to know the feeding options that are available and understand the risks associated with them so that mothers can make an informed infant feeding choice. To provide this information, programs are advised to undertake rapid assessments. These assessments involve collecting and analyzing information on local infant feeding beliefs, practices, policies, and services; formulating recommendations based on this information; and then using these recommendations to guide program design.

This issue of *Experience LINKAGES* describes the rapid assessment process and its application in the LINKAGES Project's PMTCT program in Zambia. Prior to launching the Ndola Demonstration Project (NDP) in 2000, LINKAGES carried out a rapid assessment to determine how best to integrate infant feeding and HIV counseling and testing into maternal and child health (MCH) and community services. LINKAGES later used this approach to design infant feeding counseling messages in three additional sites in Zambia. The project has conducted or will conduct similar assessments in Ethiopia, Haiti, Malawi, South Africa, Swaziland, and Tanzania.

## Why are assessments necessary?

Information collected during the rapid assessments is crucial for the development of advocacy activities, behavior change communication messages, training interventions, and community mobilization strategies. Assessments are useful to determine what feeding options are feasible, appropriate, acceptable, and likely to be sustainable and safe in different settings. Assessments can help validate, overturn, or further reveal commonly held impressions about people's

knowledge, attitudes, and behaviors. They alert program managers to social, cultural, and economic challenges to behavior change that need to be considered in program design.

The techniques used for the assessments will depend on budget, timeframe, and the research team's expertise. A rapid assessment may take anywhere from 1 to 6 months, depending on the breadth of the issues, the geographic coverage, and the time needed to hire consultants, train data collectors, conduct field work, analyze the data, and write a report.

## What should be assessed?

When time and resources permit, assessments should cover the following program areas: policy, health facility services, infant feeding and related behaviors, community issues, training, and information, education, and communication (IEC). The relationship of these areas to each other should be taken into account. For example, how do national policies affect the type of training that is provided to health providers? How does training affect the quality of counseling offered in health facilities? What links exist between health facilities and community support mechanisms for HIV-positive women and their families? How does community support for HIV-positive women affect the behaviors that they choose to adopt?

**Policy assessment.** The policy assessment should determine whether national guidelines and policies exist related to infant and young child feeding. Guidelines and policies can provide the clarity that health providers are seeking, serve as an advocacy tool, and help standardize service delivery.

Infant feeding guidelines in the context of HIV should be part of an overall national strategy to improve child survival, growth, and development.<sup>2</sup> The HIV and infant feeding guidelines developed for decision-makers, health care managers, and supervisors by WHO, UNICEF, UNAIDS, and UNFPA can serve as a guidepost.

*Experience LINKAGES* is a series of publications on the strategies, tools, and materials used by the LINKAGES Project to achieve results.

<sup>1</sup> UNICEF/UNAIDS/WHO/UNFPA. *HIV and infant feeding: Guidelines for decision-makers*. Geneva: The World Health Organization, 2003.

<sup>2</sup> UNAIDS, FAO, UNHCR, UNICEF, WHO, WFP, World Bank, UNFPA, IAEA. *HIV and infant feeding: Framework for priority action*. Geneva: World Health Organization, 2003.

Another important policy issue to assess is the implementation and enforcement of the International Code of Marketing of Breastmilk Substitutes. The Code is a set of rules to ensure that mothers receive objective and accurate information about feeding options that will enable them to make feeding choices without commercial pressures for artificial feeding. Implementation and enforcement of the Code can ensure proper and safe distribution and use of breastmilk substitutes and protect against the erosion of breastfeeding practices among HIV-negative women and women who do not know their HIV status.

**Health facilities assessment.** Through site visits, information can be gathered on a range of important topics such as counseling space and services, staffing and lactation management skills, client flow, health education, health workers' beliefs on mother-to-child transmission (MTCT) of HIV and infant feeding options, supplies and distribution of PMTCT commodities, and existing job aids and IEC materials for counselors. The WHO/UNICEF Baby-Friendly Hospital Initiative, with its Ten Steps to Successful Breastfeeding, provides a measure against which to evaluate maternity services. WHO and UNICEF are preparing materials to clarify application of these steps in the HIV context.

**Training assessment.** The training assessment reviews current curricula content in pre-service and in-service training and identifies resources, training programs, and facilitators and health care providers who have received or still require training in:

- ◆ Modes of HIV transmission
- ◆ Strategies to reduce the risk of mother-to-child transmission of HIV
- ◆ Risks and benefits of different feeding options
- ◆ Lactation management
- ◆ Optimal infant and young child feeding
- ◆ Methods for safe implementation of different feeding options for HIV-positive mothers
- ◆ Nutritional requirements of pregnant and lactating women and women living with HIV and AIDS
- ◆ Counseling protocols and confidentiality

**Behavioral assessment.** The behavioral assessment uncovers the attitudes and behaviors that will affect the willingness of health providers to promote optimal practices and the willingness and ability of families to adopt them. This assessment explores infant feeding options that may be acceptable, feasible, affordable, sustainable, and safe (AFASS) under local conditions and individual circumstances.

**Community assessment.** The community assessment reports on water sources, sanitation standards, and the availability and cost of breastmilk substitutes and other replacement foods in the market. The assessment also identifies community support services for infant feeding in general and for HIV-positive women and their families. In 1999 the Horizons Project, a partner with LINKAGES in the Ndola Demonstration Project in Zambia, conducted the community assessment, described in Box 1. Box 2 gives examples of pertinent issues to explore during various types of assessments.

### Box 1. Community Assessment for the Ndola Demonstration Project in Zambia

The Ndola community assessment revealed that it is possible to develop high-quality HIV counseling and testing services in maternal and child health (MCH) settings by building on existing resources and the community's strong mobilization efforts against AIDS. Participants in the community assessment recommended improving antenatal care and delivery services and initiating training in infant feeding counseling. As part of the assessment, trained interviewers conducted the following activities:

- ❖ **An inventory** of 57 community-based organizations selected to represent the public health sector, NGOs, private health care services, and community support groups. Using a structured questionnaire during site visits, interviewers asked managers questions about their organization's structure, programs, and operations.
- ❖ **Key informant interviews** with representatives of eight of the organizations, focusing on referral and record-keeping systems.
- ❖ **Focus group discussions** with district HIV/AIDS task forces to solicit their feedback about the proposed voluntary counseling and testing (VCT) program in MCH services, with people living with HIV/AIDS (PLWHA) to learn about their needs for care and support, and with pregnant women and general community members to understand community views about antenatal care, VCT, MCH, and infant feeding issues.

## **How is the assessment information collected?**

Ideally, a combination of qualitative and quantitative data is reviewed or collected during an assessment. Review of pre-existing quantitative survey data can provide statistical information; qualitative research can explore topics in greater depth, especially those related to beliefs and behaviors. The following techniques for collecting information are commonly used by LINKAGES during infant feeding assessments:

### **Quantitative Techniques**

**Review of existing survey data.** Most countries conduct national Demographic and Health Surveys (DHS) every 5 years. These data are useful for assessing current infant feeding practices, such as exclusive breastfeeding rates, breastfeeding duration, and complementary feeding practices. Other relevant national, regional, and local surveys should be reviewed for information on household food security, dietary practices (including micronutrient intakes), and HIV-related knowledge, attitudes, and behaviors.

**Market survey.** The cost and availability of commercial formula, animal milk, sugar, multivitamins, fuel, and equipment for the preparation of replacement foods can be obtained from market surveys. Traditional markets, kiosks, supermarkets, and other places where ingredients can be purchased should also be surveyed.

### **Qualitative Techniques**

**Focus group discussions (FGDs).** FGDs are useful to identify attitudes and beliefs about MTCT, infant feeding, and related topics and to explore the acceptability of different feeding methods. As part of the Ndola assessments, LINKAGES conducted focus group discussions with two distinct groups: mothers, and fathers of children under 2 years of age.

**In-depth interviews with key informants (IDIs).** IDIs provide detailed information through individual interviews. They are especially appropriate when discussing sensitive issues. In-depth interviews include a mix of open and closed-ended questions and probe for reasons behind different responses to specific questions. They are usually carried out with a range of policy makers and important stakeholders, including ministry of health staff, health care providers, HIV counselors, and community leaders. Key informants can provide information about current policies, guidelines, and programs related to HIV and infant feeding, as well as issues and concerns of health providers and the community. The Ndola assessments included 61 semi-structured interviews: 33 with mothers of young children, members of support groups, and members of neighborhood health commit-

tees; 22 with health providers; and 6 with traditional birth attendants.

**Household observations.** Observers can gain information about the mothers' physical environment, including their water source, hygiene, and availability of food and milk. Feeding preparation and practices can also be observed, such as breastfeeding, cup feeding, formula preparation, and food storage practices. This information is important for determining the feasibility and safety of different feeding options. In Ndola LINKAGES observed the feeding and cooking practices of 18 households.

**Trials of improved practices (TIPS).** TIPS are used to assess mothers' reactions to recommendations for improving feeding practices and to investigate barriers that mothers might face when trying to change their practices. Mothers are asked to try new behaviors for a short period and then report on their experience through interviews or focus group discussions. In Ndola 28 households participated in trials of improved feeding and care practices.

## **How can assessments inform program design?**

After the information described above is collected, the next step is to hold a workshop to organize the information, discuss the findings, and make recommendations to guide the development and implementation of the PMTCT program. To facilitate this process, information needs to be organized systematically according to themes or topics so that patterns can be identified. Whenever possible, information on the same topic from different sources should be compared. For example, information from focus group discussions about how children are fed can be compared with actual observations from household visits.

In Ndola the assessment team met daily to review the information that was collected and to discuss the findings and implications. The lead consultant prepared a report that summarized the findings of the assessment according to themes such as knowledge of HIV/AIDS and MTCT prevention, breastfeeding and alternative feeding practices, milk and porridge preparation practices, home hygiene and sanitation conditions, health provider practices and constraints, and reactions to new feeding practices. Once this information was synthesized, a 2-day workshop was held to formulate specific recommendations for the project's training and communications strategies.

The recommendations focused on the language and educational level for messages and materials, the organization of HIV counseling and testing services, and basic MTCT information. They also addressed infant feeding,



with specific recommendations for HIV-positive mothers who choose to breastfeed and for those who choose not to breastfeed. Other recommendations covered replacement feeding options for children 6 months and older and infant feeding support for mothers who do not know their HIV status or are not HIV-infected.

Information gathered during the assessment can help ensure that recommendations are grounded in reality. As noted by Ellen Piwoz, AED member of the Ndola assessment team, “Counseling women to make an informed choice is not simply a matter of telling them about theoretical risks and different feeding options. It requires deep understanding of the social issues, compassion, knowledge of the household situation, the ability to communicate complex concepts, and the ability to emotionally support women in a decision that affects themselves, their children, and the rest of their entire family.”<sup>3</sup>

To be truly useful for program design, recommendations should be concrete, clear, specific, and do-able. On some topics, the information collected may be inadequate to form recommendations. Each recommendation should be based on specific results from the research, and these results should show a clear trend or direction. For example, if the majority of focus group participants share a misconception, it will be worth designing messages to address the issue, but if only one or two do, it may not.

When the data analysis is complete, the research and program design staff should meet to discuss the recommendations, identify information gaps, and share the results and recommendations with program partners. For the Ndola Demonstration Project, these partners included the District Health Management Team, Central Board of Health, MTCT Working Group, neighborhood health committees, and communities.

Recommendations from the Ndola assessments guided the development of a comprehensive PMTCT program consisting of voluntary counseling and testing for HIV, promotion of optimal obstetric practices, infant feeding counseling, increased community involvement, and promotion of exclusive breastfeeding for HIV-negative women and women of unknown status. A selection of findings and recommendations from these assessments illustrates how the assessments shaped program design and implementation.

### Training assessment

- ◆ *Finding:* The training offered by the Ministry of Health’s Zambia Counseling Council did not cover any HIV and infant feeding issues.

- ◆ *Recommendation:* Offer training on HIV and infant feeding.
- ◆ *Outcome:* LINKAGES and its partners built on existing infant feeding, HIV/AIDS, and reproductive health curricula to develop a 12-day integrated infant feeding and PMTCT course. More than 600 health providers and counselors from 9 countries completed the course from 1999–2004. Two courses were adapted from the 12-day course: an 8-day course for community health motivators (510 trained) and a 6-day course for clinical counselors who lacked infant feeding training (133 trained).

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### Behavioral assessment

- ◆ *Finding:* Water and light porridge were often introduced to breastfed infants at 2 or 3 months of age.
- ◆ *Recommendation:* Counsel HIV-positive women who choose to breastfeed on safer breastfeeding practices and the risk of mixed feeding. Teach all women about the importance of exclusive breastfeeding for up to 6 months and safe and appropriate complementary feeding at 6 months.
- ◆ *Outcome:* LINKAGES developed a set of feeding recommendations with messages for HIV-negative women and women of unknown HIV status, for HIV-positive women who choose to breastfeed, and for HIV-positive women who choose to replacement feed. The feeding recommendations were included in the training of health care providers, educational talks, interpersonal counseling, and print and media materials. During the first year of the LINKAGES/Zambia program, exclusive breastfeeding rates among women who had never learned their HIV status increased from 57 percent to 76 percent. Mixed feeding (feeding breastmilk with other liquids and foods) fell by 40 percent.

### Policy assessment

- ◆ *Finding:* Zambia’s draft national breastfeeding policy lacked guidelines for counseling women in a way that would enable them to make an informed infant feeding choice.
- ◆ *Recommendation:* Strengthen guidelines to enable primary health care providers to counsel on informed infant feeding choice.
- ◆ *Outcome:* A series of advocacy and consultative meetings were held with policy and technical experts. LINKAGES and the Central Board of Health sponsored an HIV and Breastfeeding Policy Workshop to reach consensus on infant feeding options.

<sup>3</sup> Piwoz E. *HIV/AIDS and infant feeding: Risks and realities*. Washington: AED, 2000.

## Box 2. Examples of issues to explore in rapid assessments

### Policies

- ❖ Is there a national policy or guidelines for infant and young child feeding (IYCF)? For IYCF in the context of HIV?
- ❖ Which feeding options are recommended for infants of HIV-positive mothers up to 6 months old? For children 6-24 months old?
- ❖ What is the status of the International Code of Marketing of Breastmilk Substitutes? Has it been ratified into law? Is it enforced?

### Health Facilities

- ❖ How is HIV and infant feeding counseling integrated into antenatal care services? Into HIV testing and counseling services?
- ❖ Who typically counsels HIV-positive women on infant feeding within health facilities? How many HIV-positive women do they counsel during a typical week/month?
- ❖ Do HIV-negative mothers and mothers of unknown HIV status get any information and support in IYCF? What information and support is provided?
- ❖ What are the counselors' beliefs regarding mother-to-child transmission of HIV? Regarding how HIV-positive mothers should feed their babies?
- ❖ Where does the counseling take place? Is there adequate privacy?
- ❖ What kinds of counseling materials on HIV and infant feeding are available? How are they used?
- ❖ What printed materials are available for mothers on HIV and infant feeding? Are they displayed in an area where mothers can easily access them?
- ❖ Does the health facility have supplies for demonstrating replacement feeding methods?
- ❖ Is commercial formula distributed by the health facility? If yes, how many months' supply does a mother receive at one time? How many months' supply total will the formula be available?

### Training

- ❖ Does the country have a national training plan for health workers?
- ❖ What type of training do health workers currently receive on HIV and infant feeding? Is it pre-service or in-service training?
- ❖ Who trains them? How long does the training last?
- ❖ What is the content of the training curricula?
- ❖ How many health workers have been trained in HIV and infant feeding? In lactation management?
- ❖ Are there certain parts of the country that have no or few trained health workers?
- ❖ How many master trainers are there in HIV and infant feeding? In lactation management?

### Behaviors

- ❖ How do most women feed their infants under 6 months? What about HIV-positive women?
- ❖ What are the attitudes and constraints to exclusive breastfeeding? Exclusive replacement feeding?
- ❖ Who makes or influences decisions about infant feeding?
- ❖ What types of complementary foods are given to children? At what age?
- ❖ How do women feed their children if they are not breastfed?
- ❖ Are there any strong cultural practices that affect different feeding practices?
- ❖ How do mothers actually prepare replacement foods? Complementary foods?
- ❖ What types of food storage and hygiene practices are observed in the house?

### Community

#### *Availability and cost of replacement foods (market study)*

- ❖ Where can infant formula be purchased?
- ❖ What brands are available? How much do they cost? Are they affordable for local women?
- ❖ What types of animal milk are consumed in the communities (fresh, powdered, or evaporated)?
- ❖ How does the availability of animal milk vary throughout the year?
- ❖ Where can animal milk be purchased? How much does it cost?
- ❖ Is the animal milk diluted with water before sale? If yes, are there any vendors that do *not* do this?
- ❖ Where can sugar be purchased? How much does it cost?
- ❖ Where can micronutrient powder or syrup be purchased or obtained? How much does it cost?

#### *Local environment*

- ❖ What is the source and quality of drinking water?
- ❖ What is the source and availability of cooking fuel?
- ❖ How are sanitation conditions? (i.e., disposal of human and animal waste)

#### *Community support for HIV-positive women and their families*

- ❖ Are women who do not breastfeed their children stigmatized?
- ❖ Are there infant feeding support groups for HIV-positive women and their families?
- ❖ Are there any breastfeeding support groups?
- ❖ Are there any support groups or counseling services for People Living with HIV/AIDS (PLWHA)?

### Facilities assessment

- ◆ *Finding:* The Lubuto Clinic had one room for youth counseling but none for infant feeding counseling.
- ◆ *Recommendation:* Renovate the clinic to permit privacy during counseling.
- ◆ *Outcome:* LINKAGES supported the construction of two counseling rooms, a counselors' work room, a lab, and a separate room for antenatal women for health talks and discussion of HIV testing and counseling and PMTCT.

### Community assessment — Support for HIV-positive women and their families

- ◆ *Finding:* Mothers who did not breastfeed were victims of gossip and slander because they were assumed to be adulterous or HIV positive.
- ◆ *Recommendation:* Develop a communication strategy to address stigma. Consider stigma issues when counseling mothers.
- ◆ *Outcome:* LINKAGES determined that fear of stigma was one of the barriers to testing and replacement feeding. LINKAGES developed the “Act Now” media campaign to encourage people to learn the facts about HIV and AIDS and discuss them with others.

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## What resources are available?

The LINKAGES Project and the World Health Organization offer tools and guidelines on their websites that will assist organizations involved in PMTCT programs.

- ◆ **Assessment tool**

*Infant and young child feeding: A tool for assessing national practices, policies, and programmes* (WHO and LINKAGES, 2003)

- ◆ **Formative research guide**

*What are the options? Using formative research to adapt global recommendations on HIV and infant feeding to the local context* (WHO, UNICEF, and AED, 2004)

- ◆ **Training modules**

*Formative research: Skills and practice for infant and young child feeding and maternal nutrition* (LINKAGES, 2004)

- ◆ **Guidelines**

*Infant feeding options in the context of HIV* (LINKAGES, 2004)

*HIV and infant feeding: Guidelines for decision-makers* (WHO, UNICEF, UNAIDS, UNFPA, 2003)

*HIV and infant feeding: A guide for health-care managers and supervisors* (WHO, UNICEF, UNAIDS, UNFPA, 2003)

Visit [www.linkagesproject.org](http://www.linkagesproject.org) and [www.who.int/child-adolescent-health/nut](http://www.who.int/child-adolescent-health/nut)



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